Generative AI Will Help KPN Connect, Activate and Grow
Winifred Andriessen explains how and why KPN is beginning to deploy GenAI

KPN, a leading Dutch telco, has been quick to explore the potential of generative artificial intelligence (GenAI). It has already identified more than 60 use cases for this new technology, which makes it much easier and quicker to compose text, create images, produce videos and write software. Winifred Andriessen, Director of Advanced Analytics at KPN, believes GenAI can help to provide the telco's customers with the best services, while automating many more of its processes.

Andriessen stresses that GenAI complements "*traditional AI*" rather than replacing it. "*The way we present it to our audiences is that we use the comparison: we have the left brain and the right brain,*" she explains. "*You always need your traditional AI (left brain) for all your decision making and forecasting etc. mostly based on your own data. But now we have unlocked your right brain, which is the generative AI, which you can use for your content creation, transformation and your knowledge extraction, and combining them can be very powerful.*"

For example, if a customer contacts KPN to extend their subscription, generative AI can translate the request into data that a traditional AI system can understand. A recommendation or next best action engine would then identify the best proposition for that customer.

This proposition can then be presented to the customer using text and visuals created by generative AI. Similarly, the two technologies could work together to understand and then resolve a customer issue, such as disruption to their home Wi-Fi.

Working with the wider organization

At its capital markets day in October, KPN flagged to investors that AI will play a key role in supporting its new "*connect, activate and grow*" strategy. It said that in total it has identified more than 100 use cases for AI (including the 60 for generative AI) ranging from the development of autonomous networks to intelligent service interactions and hyper-personalized customer experiences.

The widespread publicity around GenAI, which produces very tangible results, has prompted strong demand from across KPN to help the business explore how generative AI is rapidly advancing. "*We are delighted to see a significant increase in demand for our services. We are now experiencing a strong interest from the rest of the organization, rather than actively promoting and advocating for our AI solutions,*" Andriessen explains. Having spent 20 years working on innovation in the telecoms sector, she is excited to be working at the cutting edge

of generative AI – a technology that promises to transform many processes across telecoms and the wider economy.

But harnessing AI depends on access to the right data and in the right formats. Andriessen notes the need to simplify IT so that it is easy to extract the necessary data to be employed by AI. Indeed, she stresses the importance of aligning AI strategy with the company strategy. "*It's not something we can do in isolation … you have to do it together with the whole organization,*" she adds.

After initially building its own AI models and putting them into production processes, KPN has started using external platforms, such as Dataiku, a model management platform. That makes it less dependent on internal staff knowledge to maintain these systems. "I feel more secure that I have more control and governance over there," says Andriessen.

Identifying potential use cases

To determine where to start with generative AI, KPN began by plotting use cases by potential value and impact and the time they would take to deploy, given the existing IT infrastructure. "*For the first wave we only took use cases for which there were clear business owners, were not too complex and didn't need too much IT interface and integration, as that takes too long,*" adds Andriessen. "*Those*

were basically the guiding principles that helped us select 10 use cases across the company."

The initial 10 experimental use cases were chosen to help KPN explore different avenues in different parts of the business, such as customer service, legal, engineering and personal productivity, and to acquire the necessary skills. "*We had already an initial platform with secure access to the Open AI environment, so the data would not go out of the enterprise*," Andriessen adds. "*We are learning from these use cases and some of them are very successful, and the business already wants to operationalize them.*"

Having completed phase one, Andriessen and her team are now identifying potential use cases for phase two. But in this phase, she is also planning to experiment with "*off-the-shelf solutions*" to help determine what KPN's platform strategy should be in this space. "*We are talking to platform vendors. Now we should learn and compare these with open source*," Andriessen explains.

While exploring the potential of AI and data, KPN is keen to ensure it maintains high standards around protection for personal data. "*Privacy is in the DNA of all our employees*," Andriessen notes. "*I see us as the custodian of the customer data. We connect people and let them connect, but we don't look into the content of that connection. Doing AI responsibly is completely who we are*."

Empowering employees, while managing the risks

KPN has established an acceptable usage policy for generative AI, so that its employees are clear about what they can and cannot do with the technology. The telco already had in place an internal risk assessment process to distinguish between low and high impact use cases. High impact use cases are discussed in the high impact AI advisory council, containing representatives of all disciplines across the organization, which assesses the risks associated with new use cases, deployments and procurements. As a very potent technology that makes extensive use of data, GenAI needs to be employed carefully. "*We have the over-reliance risk, which is, I think, very big with generative AI, apart from copyright infringements, data leaking and the opacity of the system*," Andriessen points out.

KPN has taken steps to make sure its employees don't share data into open generative AI applications. They are also required to use a watermark highlighting output that has been completely created by generative AI. Andriessen stresses that generative AI is far from infallible. "*We really make all employees aware, you really need to check the output, because you cannot trust it,*" she adds.

Another key challenge is recruiting and retaining people who can really bring the best out of generative AI. In this respect, Andriessen believes KPN has several advantages. One is the availability of a lot of data – telecom companies play a central role in the digital economy, providing the connectivity via which people access everyday services. Another advantage is having multiple locations all over the Netherlands, and especially Amsterdam, to attract international data scientists. Andriessen, who has built a community of around 50 data scientists and machine learning engineers spanning 17 nationalities, recruits talented people straight from university. Finally, KPN has been careful to build an environment and culture in which its staff readily learn from each other and exchange knowledge.

Although generative AI will increasingly create software code itself, the need for human oversight (and expert engineers) is unlikely to go away. Indeed, the impressive productivity of generative AI tools may create new challenges. "*From a governance point of view, how do we manage a situation where everybody starts to automate all kinds of processes?*" asks Andriessen. "*That's maybe the next challenge.*"

Acknowledgements

We would like to thank the following contributors who have been pivotal in the completion of this interview.

KPN:

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Deloitte:

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